

REMARKS

Claims 1-5 are pending in this application. By this Amendment, claims 1-5 are amended. No new matter is added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Applicant appreciates the courtesies shown to Applicant's representative by Examiner Laxton in the May 9, 2007 personal interview. Applicant's separate record of the substance of the interview is incorporated into the following remarks.

The Office Action objects to claims 1-5 asserting that the phrase "the duty ratio when an overvoltage is applied" in claim 1 lacks antecedent basis. To obviate this rejection, claim 1 is amended to recite "wherein when an overvoltage value is applied to said power supply, an upper limit value of the duty ratio is determined."

The Office Action also objects to the phrase "said power supply" of claim 2 asserting that there is insufficient antecedent basis for this feature. To obviate this objection, claim 2 is amended to recite "wherein the threshold voltage is a reference value for determining whether an overvoltage has been applied to said power supply." Applicant respectfully requests that the objections to claims 1 and 2 be withdrawn.

The Office Action rejects claims 1-5 under 35 U.S.C. §102(a) as being unpatentable over Komatsu (EP 1414145). Applicant respectfully traverses this rejection.

Komatsu fails to disclose or suggest a control device that provides switching control to the first and second switching elements using a duty ratio at a range lower than an upper limit value of the duty ratio; wherein when an overvoltage is applied to said power supply, an upper limit value of the duty ratio is determined, as recited in independent claim 1.

Komatsu, at paragraph 24, discloses a control 30, as shown in Fig. 2 wherein (1) a motor torque command value; (2) motor current values for each phase detected by the current sensors 22; and (3) an inverter input voltage detected by the voltage sensor 22, provides for a

motor control phase voltage operation unit 40. In Fig. 3 and paragraph 29, Komatsu discloses the calculation of the target value with respect to the inverter input voltage command operation unit 50. The induced voltage constant $K(T)$ is determined from motor torque. The motor optimum drive voltage is calculated from the product of induced voltage constant $K(T)$ and the motor rotational speed n , and a conversion factor α for DC voltage and AC voltage using the following equation: $V_{\text{mot}} = K(T) \times n/\alpha$. Komatsu does not disclose or suggest any setting of an upper limit of any duty ratio.

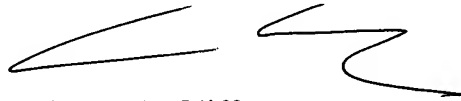
Thus, Komatsu fails to disclose or suggest a control device that provides switching control of the first and second switching elements using a duty ratio at a range lower than an upper limit value of the duty ratio; wherein when an overvoltage is applied to said power supply, an upper limit value of the duty ratio is determined, as recited in independent claim 1.

In accordance with the above Remarks, Applicant respectfully submits that independent claim 1 defined as patentable subject matter. Claims 2-5 depend from claim 1 and therefore also define patentable subject matter, as well as for the additional features they recite. Thus, Applicants respectfully request that the Examiner withdraw the rejections.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-5 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Gang Luo
Registration No. 50,559

JAO:EXC/jls

Date: May 23, 2007

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
